

## 2.7 - Division of Real Numbers

Division Rule:

The quotient of two numbers with:

- the same sign is positive.

- opposite signs is negative.

Ex 1:  $10 \div (-5)$

$$= \textcircled{-2}$$

Ex 2:  $-39 \div \left(-4\frac{1}{3}\right)$

$$-39 \div -\frac{13}{3} = -39 \times \left(-\frac{3}{13}\right) = \frac{117}{13} = \textcircled{9}$$

Ex 3:  $\frac{-\frac{1}{3}}{\frac{4}{1}} = \left(-\frac{1}{3}\right) \times \left(\frac{1}{4}\right) = \textcircled{-\frac{1}{12}}$

Ex 4: Simplify the expression

$$\frac{32x - 8}{4}$$

$$= \frac{32x}{4} - \frac{8}{4}$$

$$= 8x - 2$$

Ex 5: Evaluate the expression when  $a = -2$  and  $b = -3$

$$\begin{aligned} & \frac{-2a - b}{a + 3b} \\ &= \frac{-2(-2) - (-3)}{-2 + 3(-3)} \\ &= \frac{4 + (+3)}{-2 + (-9)} = \frac{-7}{11} \end{aligned}$$

Ex 6: You are descending in a hot-air balloon. You descend 500 feet in 40 seconds. What is your velocity?

$$V = \frac{d}{t}$$

$$V = \frac{-500 \text{ ft}}{40 \text{ s}}$$

$$V = -12.5 \text{ ft/s}$$



## Homework: 2.7 Worksheet

#2-28 even,  
30-33